

TERMINAL OPERATIONS



Senior Transportation Officer Qualification Course Terminal Operations

Motivator

In this lesson, you will learn about Terminal Operations currently employed in both the Continental United States (CONUS) and Outside Continental United States (OCONUS).

Terminals are key nodes in the Defense Transportation System (DTS) that support the geographic combatant commander's concept of operations at all levels of war and throughout the full range of military operations.

From Deployment Terminals to in-theater port facilities, the basic activities, the elements involved, and responsibilities that are required for efficient Force Projection will be discussed.

As a Senior Transportation or Logistics Officer, your assignments could range from a well established, fixed port environment, to one where no facilities exist.

Your role in following the geographic combatant commander's intent is critical to mission accomplishment.

The establishment and employment of terminals is key in supporting joint operations.

Deployment and in-theater terminals are key nodes in the total distribution system that must be established to ensure the success of a military operation.

Historically, 90 percent of a deploying force's equipment and materiel are delivered to the theater via strategic sealift. The rest are personnel and their immediate equipment requirements.

MOTIVATOR



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Objectives

Action:

Identify the activities, elements, and responsibilities relative to Terminal Operations.

Condition:

In an environment configured for Interactive Multimedia Instruction (IMI).

Standard:

Identified the activities, elements, and responsibilities currently practiced during Terminal Operations for ongoing improvement in U.S. Force Projection within the Operational Environment.

OBJECTIVES



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Lead-in

The Defense Transportation System (DTS) is comprised of these three interrelated transportation functions:

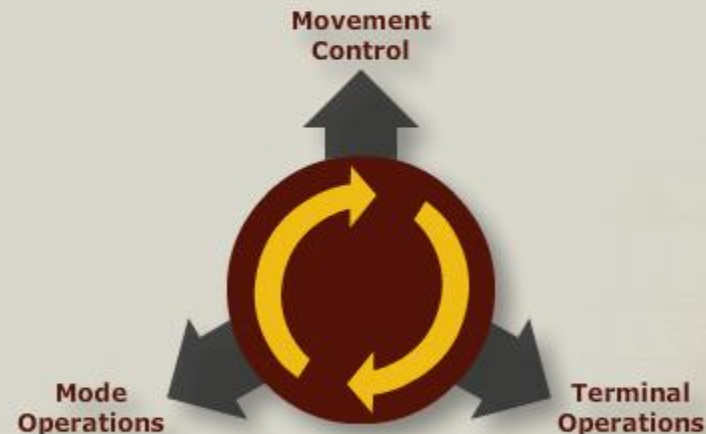
- **Movement Control**
- **Mode Selection**
- **Terminal Operations**

United States Transportation Command (USTRANSCOM), through its transportation component commands, usually functions as the single port manager (SPM) at terminals to centralize and streamline operations.

Earlier, you learned that Movement Control was the most important function of a transportation system.

It is important to understand that transportation Movement Control facilitates the critical mode integration of Terminal Operations.

LEAD-IN



Movement Control

Movement control is the planning, routing, scheduling, and control of personnel and cargo over lines of communications (LOCs).

It involves the commitment of allocated transportation assets and the acquisition of HN transportation services to support military operations.

Its goal is to optimize common-user transportation modes and terminals. This effort links common-user assets with the organic transportation capabilities of the supported units.

Common-user transportation assets support the whole force. Movement control is the linchpin of a transportation system.

Mode Selection

Mode operations use transportation assets to link terminals into a continuous movement chain.

The three mode operations are land, water, and air. For each mode, there are several means of transport

They include:

- Inland surface transportation - rail, road, and inland waterway
- Sea transportation - oceanic and coastal
- Air transportation
- Pipelines

Terminal Operations

Terminal operations involve receiving, processing, and staging passengers. It also includes receiving, loading, transferring between modes, and discharging unit and non-unit equipment and cargo.

The main activities executed at terminals are loading and unloading modes of transport, marshalling, manifesting, stow planning, and documenting movement through the terminal.

The three main terminal operations are:

- Water terminal - fixed ports, unimproved ports, or bare beaches
- Land terminal - inland water, rail, highway, or petroleum terminals
- Air terminal - fixed and unimproved airfields, to include expeditionary airfields

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Terminal Functions

The designated Single Port Manager (SPM), serving as the Surface Deployment and Distribution Command (SDDC) representative, is responsible through all phases of theater port operations, from a joint logistics over-the-shore (JLOTS) operation, to a totally commercial contract-supported deployment.

The 7th Sustainment Brigade serves as the senior terminal headquarters under USTRANSCOM and SDDC.

The operating functions that transpire at terminals are:

- Reception
- Discharge
- Transfer
- Storage
- Clearance

The terminal commander establishes reception and clearance procedures to achieve the geographic combatant commander's objectives.

These objectives are supervised by the Single Port Manager, representing the Surface Deployment and Distribution Command (SDDC).

The operating functions that transpire at terminals are Reception, Discharge, Transfer, Storage, and Clearance.

The objective of ship discharge operations is to maximize the onward movement of cargo while minimizing the turnaround time of the ship.



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BRANCHING



Marine

Incomplete



Inland

Incomplete



Deployment

Incomplete



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Active Component Marine Terminal Command and Control Environment

The Surface Deployment and Distribution Command (SDDC) is the Army Service Component Command (ASCC) to the United States Transportation Command (USTRANSCOM), and is the Single Port Manager (SPM) at the Seaport of Embarkation (SPOE) and Seaport of Debarkation (SPOD).

Within the SDDC are the following active component units:

- The Transportation Terminal Group (TTG)
- The Transportation Terminal Battalion (TTB)
- The Joint Task Force-Port Opening (JTF-PO)
- The Transportation Theater Opening Element (TTOE)



SDDC

Committed - Dependable - Relentless



The Surface Deployment and Distribution Command has a mix of active and reserve forces to carry out their deployment responsibilities, coordinating operations between Army units, the other military branches, the Military Sealift Command, and all activities with the civilian port authorities and contractors, such as the Port Support Activity and Host Nation support.

At the operational level, Marine or Water terminals introduce unit equipment (to include bulk fuel) into the Joint Operations Area and conduct operations to sustain the force.

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TTG

The Transportation Terminal Group (TTG) is an active component Surface Deployment and Distribution Command (SDDC) Table of Distribution and Allowance (TDA) headquarters responsible for command and control of assigned water terminals.

Duties and responsibilities include:

- Perform staff functions and management in support of subordinate transportation units.
- Serve as the Senior Terminal Headquarters under the United States Transportation Command (USTRANSCOM).
- Command two to seven Transportation Battalions.

TTB

The Transportation Terminal Battalion, under command and control of the TTG, conducts surface deployment, distribution, and water terminal port operations directly supporting the warfighter.

Duties and responsibilities include:

- Plan, establish, and conduct port operations to include cargo reception, staging, load planning, vessel load/discharge operations.
- Command and control Terminal Management Teams engaged in supervising and managing civilian contract operations at a SPOE/SPOD.
- Transition from command and control of TOE terminal operating units to managing and supervising civilian contract capabilities at SPODs/APODs.
- Provide a port common operational picture.
- Serve as a Single Port Manager (SPM) of a strategic seaport.
- Support port opening operations.

JTF-PO

Designed to open ports and establish the initial distribution network for expeditionary operations, the Joint Task Force-Port Opening (JTF-PO) combines USAF, Navy, and Army capabilities to provide USTRANSCOM and the theater commander with a ready-to-deploy, trained force for opening ports and establishing the initial distribution network.

Functions that the JTF-PO may perform in the accomplishment of its mission include:

- APOD/SPOD assessment.
- Distribution network assessment.
- Establishment of command and control (C2) connections with the Joint Deployment and Distribution Operations Center (JDDOC).
- APOD/SPOD opening and initial operation.
- Distribution node management.
- Cargo and passenger transfer operations and cargo movement to distribution nodes.
- Movement control including coordination for onward movement of arriving cargo and passengers.

TTOE

Designed to augment a sustainment brigade during theater opening operations.

The Transportation Theater Opening Element (TTOE) provides transportation functional expertise for staff planning and supervision of units engaged in force reception and distribution operations.

Functions that the TTOE may perform in the accomplishment of its mission include:

- Monitor movements program, maintain operational status, and commit transportation assets in support of RSOI operations.
- Advise on the use of assigned motor, air, and rail transport assets and monitor the status of all mode operations.
- Advise on the use of assigned terminal and watercraft operations and provide terminal infrastructure assessments.

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Reserve Component Marine Terminal Command and Control Environment

Within the SDDC are the following
Army Reserve units:

- The Deployment Support Command (DSC)
- The Transportation Group
- The Deployment and Distribution Support Battalion (DDSB)
- The Deployment and Distribution Support Team (DDST)



The rapid operational tempo at major seaports like the Port of Ash Shuaiba in Kuwait, require several reserve transportation organizations involved in vessel operations, redeployment support, container management, and joint reception, staging, and onward movement of cargo.



Chris Goss
Planner for the Operations Section
595th Transportation Group

When stateside, everybody pretty much stays in their own lane with regards to their position description.

The main difference in Kuwait is that you could see the results your actions had on the Soldiers in the war.

In Kuwait, if you noticed that something needed to be done, you would just go do it, and it could turn out to be as, or more, important than your usual job.

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DSC

The Deployment Support Command (DSC) mission is to:

- Command and control SDDC assigned or attached Army Reserve units.
- Provide standardized training and readiness oversight to all Army units engaged in water terminal, deployment and distribution support, container management, and movement control operations.

DSSB

The Deployment and Distribution Support Battalion (DSSB) mission is to:

- Command, control and technically supervise TOE terminal companies and detachments operating at installations and seaports.
- Commands and controls the Deployment and Distribution Support Teams (DDSTs), which provide technical deployment related support to deploying units worldwide, and provide container management in theater.
- Commands and controls surface mobility units performing terminal operations in a SPOE/SPOD.
- Commands and controls USAR Terminal Management Teams engaged in supervising and managing civilian and contractor operations in a SPOE/SPOD.
- Assists deploying units worldwide by providing DDST's to deploying unit locations.
- Support port opening operations.

DDST

The Deployment and Distribution Support Team (DDST) mission is to:

- Assist units with deployment planning, staging, and preparing unit equipment/personnel for movement by surface or air.
- Manage, control, and maintain In-transit Visibility of containers.
- Provide deployment assistance to the Brigade Mobility Officer or Installation Transportation Officer.
- Assist units with movement to designated POE or POD.
- Provide deployment support from fort to port.
- Ensure documentation accuracy.
- Provide liaison between the port and installation.
- Ensure the conduct of safe operations (rail load / line haul).
- Provide technical guidance/assistance to unit in preparing, maintaining, and executing movement plans.
- Inspect equipment and vehicle loads.
- Provide HAZMAT qualified personnel to assist unit HAZMAT certifiers.
- Coordinate with USCG Container Inspection & Training Assistance Team to conduct training and inspect containers/HAZMAT cargo.

TG

The Transportation Group (TG) mission is to command, control, and technically supervise assigned or attached SDDC TDA and TOE battalions engaged in terminal operations, terminal supervision and management operations, movement control operations, and other mobility support operations.

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Terminal Classification

Ocean water terminals are classified as fixed-port facilities, unimproved port facilities, or bare beach port facilities.

Water terminals can be categorized based on three main characteristics: physical facilities, commodity handled, and methods for cargo handling.

Terminal selection is important because deployment and sustainment of the military operation will hinge heavily on the terminal's effectiveness.

Terminals are subclassified as:

- **General cargo terminal:** where breakbulk cargo is off loaded (labor intensive and poor turnaround time).
- **Container terminal:** fixed-port, deep-draft facilities specialized in container management (gantry cranes) from ship to inland transportation (rail and truck).
- **Roll On/Roll Off (RO/RO) terminal:** fixed-port, deep-draft facility designed to handle and process rolling stock from ship to massive parking areas, allowing fast turn around time.
- **Combination terminal:** fixed-port facility where containers, RO/RO, and Load On/Load Off (LO/LO) operations are handled at a single location.



Fixed port facilities are an improved network of cargo handling terminals specifically designed for transfer of ocean going freight loaded on ocean going vessels.

Unimproved facilities are terminals not designed for cargo discharge, or a fixed terminal that is degraded so that it may not have the facilities, equipment infrastructure, or water depth of a fixed port.

Bare beach facilities are where Army lightering is discharged across a beach where no equipment or infrastructure to support cargo loading exists.

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SPOD Functions

The major Sea Port of Debarkation functions include:

- Ship Arrival and Departure Coordination
- Cargo Offloading, Documentation, and Clearance
- Contract and Demurrage services
- Coordination for Transportation for Onward Movement
- Rail Head Operations (if available)
- Movement Control from SPOD to Marshalling Areas (vehicle and helicopter fly-away areas)
- Hazardous Cargo Handling
- Field Services and Medical Support
- Holding Area Operations
- Maintenance and Logistic Support for Arriving Forces
- Port Security and Force Protection

The terminal unit commander has planning and execution aspects to consider before off load operations and should coordinate with Military Sealift Command representatives.

Once vessels are off loaded, unit equipment is moved to temporary holding areas within the port to be configured into convoys, rail loads, or watercraft loads.

Unit equipment clearing the port moves to an Intermediate Staging Base or ISB, an inland water terminal, or directly to the Tactical Assembly Area.



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Required Resources

The basic resources for any terminal operation will include:

- Aircraft
- Ships
- Trucks and Rail Equipment
- Lighterage
- Life Support
- Host Nation Support
- Contractors
- Materials Handling Equipment and Cargo Handling Equipment
- Civilian, Government, and Military Personnel
- Automation enablers for In-transit Visibility



Terminal Operations of any kind require certain basic resources at their disposal.

Host Nation Support is important to establish and coordinate at the outset.

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Documentation

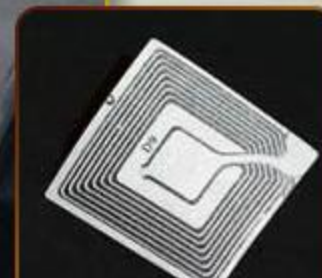
Port operators need timely and accurate documentation including advance information on forces and equipment arriving in-theater.

Reduction of pier congestion and work slowdown are key goals of proper documentation.

The types of documentation required during Terminal Operations include:

- Movement control
- Coordination
- Cargo reports
- Passenger manifests
- HAZMAT
- Shipping
- Special handling
- Customs inspection
- Services authorization

The addition of the Automated Cargo Documentation Team capability greatly increased the DDSB's berth capability.



The use of automated documentation has sped up and simplified the process, for example, the Logistics Application of Automated Marking and Reading Symbols (LOGMARS) documentation, and Global Positioning Satellite System "micro transport devices".

Manual procedures are still applicable if automation fails or is unavailable.

Proper documentation will ensure rapid clearing of the water terminal facilities and into a marshalling yard where documentation is updated.

Reduction of pier congestion and work slowdown are key goals of proper documentation.

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General Planning Considerations

Here are some major general Water Terminal planning considerations or problem areas a Senior Transportation or Logistics Officer may have to determine and address:

- Specific port data - anchorage and wharf types and their specifics
- Force Protection - threat and security issues
- Host Nation support and Status of Force (SOF) agreements
- Lines of Communication availability
- Weather and Hydrography
- Operational Planning - berths, cranes, material handling equipment (MHE), stevedore personnel, piloting services, storage and repair facilities
- Watercraft requirements
- Life support - medical, dining, billeting
- Marshalling Yard capabilities
- Special Cargo requirements - ammo, HAZMAT, and/or classified cargo



Planners should establish terminals capable of handling palletized, containerized, bulk liquid, and Roll On/Roll Off cargo.

Problem areas must be identified and solutions reached either by direct coordination with the mode operators and receivers through command channels.

It will be vital that the terminal units have the required facilities, material handling equipment, and personnel to conduct ship discharge operations.

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Key Points

The following key points of Marine Terminal Operations were discussed:

- Active and Reserve component command and control
- Terminal classification
- SPOD functions
- Required resources
- Documentation
- General planning considerations

KEY POINTS



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Quick Challenge

QUICK CHALLENGE



Which terminal classification is designed to handle rolling stock and has a fast turnaround time?

Select the best answer and then select Submit.

A. Breakbulk

B. Combination



C. Roll On/Roll Off

D. Container

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Terminal Units

The following units will either operate in or have representatives within a fixed port or inland marine or land terminal:

- Sustainment Brigade: responsible for all terminal operations within a specified area.
- Transportation Terminal Battalion: commands units conducting water terminal operations, documentation activities, and cargo transfer operations.
- Inland Cargo Transfer Company (ICTC): discharges, loads and transships cargo/containers at inland terminals, in a central receiving and shipping point (CRSP), or at an intermediate staging base (ISB).
- Seaport Operations Company (SOC): discharges and loads breakbulk cargo and containers in fixed ports or JLOTS sites; coordinates seaport clearance and onward movement.
- Automated Cargo Documentation Team: provides cargo documentation services.
- Contract Supervision Detachment: negotiates/administers stevedore contracts.
- Watercraft Company: supports harborcraft and lighterage missions.
- Port Construction Company: builds/maintains port facilities.



There are several types of units involved in fixed port and inland water and land terminal operations.

In fiscal 2007, the concept of an inland cargo transfer company (ICTC) to replace the cargo transfer company (CTC) originated.

The conversion to a modular Army created the 7th Sustainment Brigade and dropped the Army Composite Transportation Group.

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Throughput Capacity Functions

Throughput capacity is based on a port's ability to receive, process, and clear personnel and equipment.

The cargo reception function is based on the number and size of the berths, material handling equipment (MHE), and water depth.

The cargo process function is based on staging area and the time it takes to marry units with their respective equipment.

The cargo clearing function is based on truck and rail out loading facilities, gate capacity, and links to the theater transportation networks.

The throughput capacity of a terminal is dependent on its storage and clearance capacity.

Terminal efficiency is measured in throughput capacity - the daily amount of cargo and personnel that can be received, processed, and moved out from a terminal.

Estimating terminal throughput capacity is key to the process of selecting terminal sites and operating units.

Other considerations such as the threat, weather, and the availability of labor must also be taken into account.



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Host Nation Support

Host Nation support, by providing a variety of services and facilities, relieves U.S. forces from the task of establishing and maintaining equivalent capabilities, thereby reducing the logistical footprint.

Services and facilities that might be considered for Host Nation support are as follows:

- Logistics support
- Medical facilities
- Construction and engineering
- Police and paramilitary organizations
- Transportation assets and infrastructure
- Labor force
- Emergency services
- Fuel and power facilities
- Communications facilities



In many cases, U.S. forces must rely on Host Nation support to supplement or provide services, supplies, and facilities.

Host Nation support is civil and military assistance rendered by a nation to foreign forces within its territory during peacetime, crises, or emergencies, or war based on agreements mutually concluded between nations.

It is important that the Host Nation understand overall U.S. requirements, therefore, Civil Affairs personnel normally arrive early to assist and coordinate efforts to identify and acquire Host Nation support.

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Army Watercraft

The ability to receive forces in an operational area, despite degraded or austere ports is essential to the Army's force projection strategy.

Army watercraft is the primary enabler in this process because they:

- Allow ships that cannot get to a pier to be off-loaded in-stream
- Move cargo to smaller coastal ports or directly over the shore

Watercraft assets can come from these sources:

- Military units
- Host Nation support
- Third nation commercial or charter service

Army watercraft will be discussed in detail within the lesson on Lighterage.

There are three sources of lighterage and watercraft resources in an overseas area.

The first are military assets assigned to the combatant commander for common transportation service. Harbor support vessels (i.e., tugs and various landing craft) are prime examples.

The second is Host Nation support negotiated through bilateral or multilateral agreements.

The third source is commercial hire or charter service from a third nation.



Caution!

Note that in-stream discharge operations are sensitive to weather and seas conditions and generally require a protected anchorage.

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Key Points

The following key points of Marine Terminal Operations were discussed:

- Terminal units
- Throughput capacity
- Host Nation support
- Army watercraft

KEY POINTS



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Quick Challenge

QUICK CHALLENGE



_____ is based on a port's ability to receive, process, and clear personnel and equipment.

Select the best answer and then select Submit.

A. Movement Coordination

B. Asset Management

C. Optimization



D. Throughput capacity

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Inland Waterways

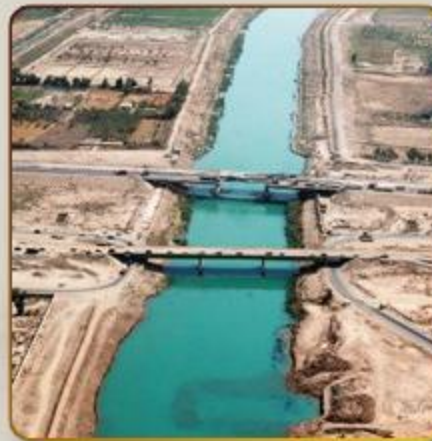
Sea Port of Debarkation water terminals include both seaports and inland water facilities capable of receiving deep draft vessels, coastal vessels, and barges.

Many established terminals will have a transportation infrastructure in place such as railways, highways, adjacent airfields, and inland waterways.

Inland Waterways (IWWs) include all rivers, lakes, inland channels, and canals deep enough for waterborne traffic, and protected tidal waters.

The Inland Water terminal is similar to any other inland terminal, except that it is where cargo is transferred between some form of lighterage and land-based transportation.

Inland terminals vary in size and design, based on the commodity being handled.



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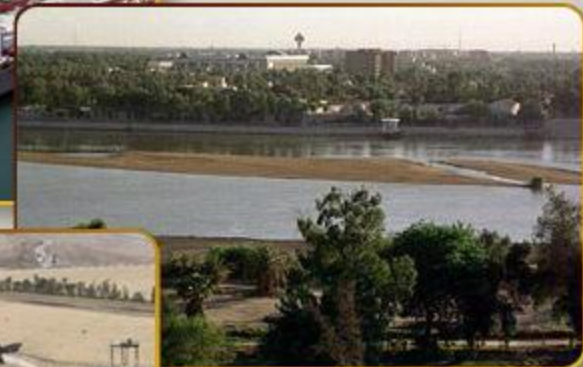
Inland Waterway System

In a theater, an IWW is normally operated as a complete system that includes the locks, dams, bridges, and other structures that contribute to or affect movement of vessels carrying passengers and freight.

Three separate functional components make up an Inland Waterway System (IWWS):

- The Ocean Reception Point (ORP)
- The Inland Waterway (IWW)
- The IWW Terminal

IWW operations are generally characterized by the use of tugs and barges to extend the theater transportation system from deep-draft ports to inland discharge points.



The U.S. Army Corps of Engineers operates and maintains the Inland Waterway System in the continental United States and could be used in this capacity overseas; however, the Host Nation normally maintains and operates developed Inland Waterway Systems in overseas theaters.

This is because Host Nation watercraft are designed for use in their specific waterway system.

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Inland Waterway Mission

The military uses IWWs to complement an existing transportation network when moving cargo into a theater of operations.

An IWW can greatly reduce congestion and the workload of other modes within a theater.

It is an extremely efficient method for moving a convoy of general cargo, container, liquid, dry bulk, or heavy or outsized cargo.

Watercraft types employed during IWW missions include lighter aboard ship (LASH) and sea barge (SEABEE) barges; locally available self-propelled barges; and U.S. Navy or Army barges, tugs, and landing craft.



Inland waterway operations are used when the theater of operations has an established inland waterway system of connecting rivers, canals, or lakes that can be used to support theater operations.

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Inland Waterway Terminal

The Inland Waterway Terminal is similar to any other inland terminal, except that it is where cargo is transferred between some form of lighterage and land-based transportation.

An Inland Waterway Terminal normally includes facilities for mooring, cargo loading and unloading, dispatching and controlling, and repairing and servicing all craft capable of navigating the waterway.

Inland Waterway Terminals can be manned entirely by military personnel or be manned by local civilians supervised by military units of the appropriate transportation staff section.

Inland Waterway Terminals vary in size and design, based on the commodity being handled.

A terminal can be a finger pier or a basin-type terminal.

The number of units required to operate an inland waterway terminal depends on a completed terminal throughput analysis.



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Riverine Operations

When water routes are strategically and tactically important to the enemy, interdiction and control of the waterways are referred to as riverine operations.

Riverine operations are joint operations undertaken primarily by Army and Navy forces.

Units conducting Riverine operations use water transport extensively to move troops and equipment throughout the area.

Once troops are aboard, watercraft proceed to designated landing areas within an assigned area of operations (AO) for offensive operations.

A Riverine environment can incorporate several major rivers and tributaries, or an extensive network of minor waterways, canals, and irrigation ditches.

Movement planners may have to use water transportation extensively due to the lack of a suitable road net.



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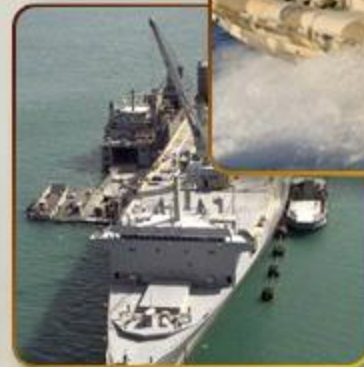
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Key Points

The following key points of Inland Waterway operations were discussed:

- The Inland Waterway System
- The Inland Waterway mission
- The Inland Waterway Terminal
- Riverine operations

KEY POINTS



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Quick Challenge

QUICK CHALLENGE



Identify the three separate functional components that make up an Inland Waterway System.

Select the best answer and then select Submit.

A. Tugs, barges, and cranes



B. Ocean Reception Point (ORP), Inland Waterway (IWW), and IWW Terminal

C. Length of haul, speed, and loading and unloading time

D. River crossings, canals, and locks

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Land Terminal Command Structure

Inland surface transportation of personnel and cargo over lines of communications (LOCs) involves establishing land terminals for the transshipment of cargo and personnel.

This intratheater distribution system is comprised of units and facilities connected by a multimodal transportation network that enables methods of delivery that may include road, rail, inland waterways, pipeline, air, and airdrop.

The Theater Sustainment Command (TSC) establishes a network of distribution hubs and supply support activities in order to effectively support requirements and maximize the efficiency of an intratheater distribution system.

The Deputy Chief of Staff, Support Operations (SPO) focuses on establishing and maintaining the Army portion of the theater distribution system through its Distribution Management Center (DMC).



Land terminals include facilities such as truck terminals, trailer transfer points (TTPs), railheads, pipeline, and inland water terminals.

The main activities executed at these terminals are loading and unloading modes of transport, marshalling, manifesting, stow planning, and documenting movement through the terminal.

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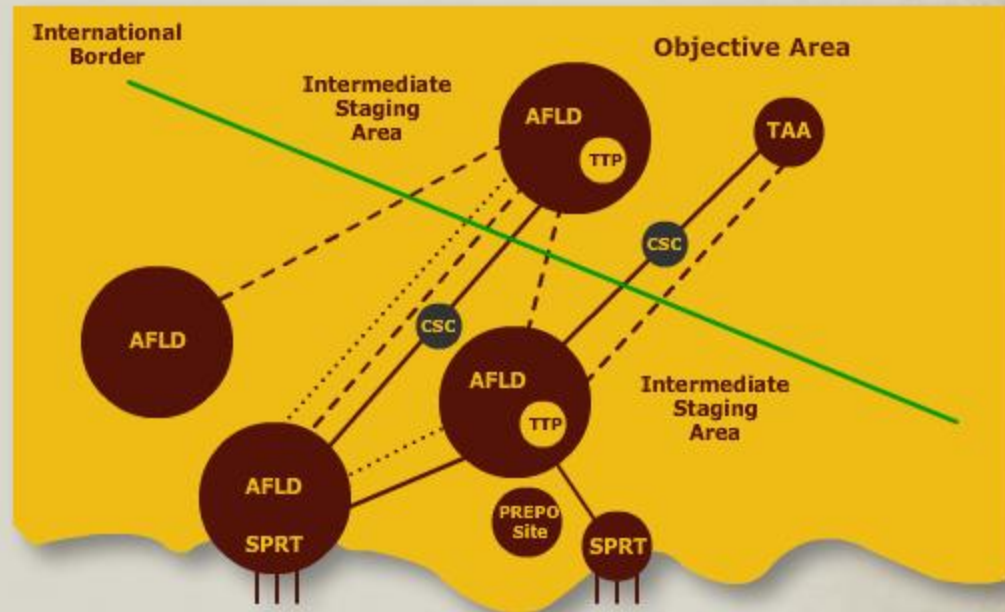
Units clearing a port move to an Intermediate Staging Base (ISB) located in areas convenient to both the SPOD and APOD.

An ISB is essentially a collection of brigade combat teams, sustainment, signal, military police, engineer, and support units brought together for a specific purpose; to achieve Force Closure.

Intermediate Staging Base functions include:

- Communications - with combatant command (COCOM)
- Life Support - housing, sustenance, sanitation, and health care
- Arming, Fueling, and Fixing - calibration of equipment, range areas, maintenance shelters, and test-driving loop
- Onward Movement Preparation - establish communication networks, route planning, and training
- Security - protection of this high-value target is critical

Intermediate Staging Base



-----	Theater Airlift Channel
————	Highway
.....	Rail
AFLD	Airfield
SPRT	Seaport
TTP	Trailer Transfer Point
CSC	Convoy Support Center

Staging is that part of the Reception, Staging, Onward Movement, and Integration process that reunites unit personnel with their equipment through activities at a secure staging base established near but not in the area of operations.

The Intermediate Staging Base, or ISB, must deploy early to expedite any theater distribution plan.

Staging should not be a lengthy process, and the time that units spend staging through the ISB must be minimized.

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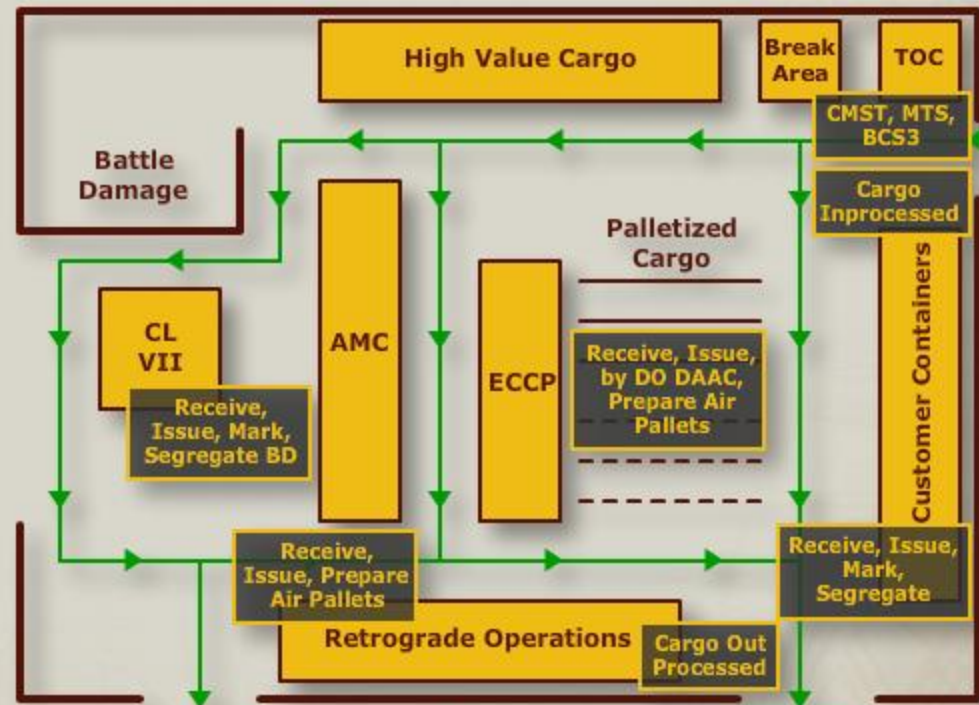
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CRSP Yard

The mission of the Central Receiving and Shipping Point (CRSP) yard is to provide a centralized operation within an AO where cargo is delivered and backhaul picked up.

Employing the familiar Hub and Spoke concept, the CRSP objective is to maximize vehicle loads and throughput, minimize loading time, minimize time spent at the CRSP, and reduce the number of convoys moving within the Area of Operations.

Units running the CRSP would be transportation heavy with Inland Cargo Transfer Company (ICTC) and Movement Control Team (MCT) elements capable of running convoys, burning and reading RF tags, handling palletized cargo, containers, materiel inside the warehouse, and perform retrograde operations.



- Barriers
- ➔ Traffic Plan
- Frustrated Pallet
- Customer Lanes



An integral component of the intratheater distribution system is the Central Receiving and Shipping Point, also called the CRSP.

The CRSP must be mobile during the offensive operations with no concrete walls or hard stands, and eventually morph into a semi-fixed CRSP for defensive or Stability and Support Operations.

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Journal Entry

1st Lieutenant Bart S. Lajoie
21st Cargo Transfer Co., 44th Corps Support Bn.
Fort Lewis, Washington

CRSPs were established throughout Iraq to help control the flow of deploying and redeploying equipment by maintaining accountability and in-transit visibility (ITV).

Mainly, CRSPs help answer the question many units ask: Where's my stuff?

Terrain: *Planners must assess equipment throughput and allow for future expansion. Study the surface characteristics with an eye on Iraq's rainy season. Be prepared to improve the terrain with gravel.*

Container Lanes: *As units deploy and redeploy, their containers begin or end their movements at a CRSP. To eliminate carrier-owned container late return detention fees to the U.S. government, the CRSP yard must establish lanes to identify unit containers. One technique is to establish two lanes—one for inbound and one for outbound containers, or have the government buy their own.*

Ramps: *The quickest way to unload rolling stock is by using ramps. One lesson learned in Iraq is that CRSPs should have ramps with two different heights. If a CRSP only has a ramp for military-height trailers, dunnage can be used to make up the height difference so that vehicles can be safely loaded onto and unloaded from contractor trailers.*

Lighting: *CRSPs conduct 24-hour operations. When heavy equipment transporters enter the yard at night—and the tactical situation permits, lights are used at the ramp area and at the places in the yard where roll-on/roll-off procedures are used. Roll-on and roll-off are the most dangerous cargo transfer functions occurring in the yard.*

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Convoy Support Centers

Convoy Support Centers (CSC) provide mess, maintenance, crew rest facilities, and other personnel and equipment in support of convoys moving along Main/Alternate Supply Routes (MSRs/ASRs).

They are a cross between a trailer/cargo transfer point and an intermediate truck terminal with the mission to support, enhance, and otherwise facilitate direct haul convoy operations.

CSC's must have the appropriate equipment to read RF tags, and to enable ITV of units and supplies moving within the theater distribution system.

Three levels of CSC support are:

- Truck Stop
- Mini-Mart
- Pit Stop



Convoy Support Centers are located along the Main Supply Routes or Alternate Supply Routes, generally every 200 miles or as required by mission, enemy, terrain and weather, time, troops available and civilian (METT-TC) considerations.

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Truck Stop

A Truck Stop CSC is a full service CSC that operates as part of a larger support area, supporting convoys moving through the area en route to another hub or final destination.

The sustainment brigade designates a CSSB to provide C2 of a CSC providing full support.

The truck stop CSC is capable of providing bulk and retail Class III, bulk and bottled water, Class I (MKT-UGR/MRE), Class IX (ASL and PLL), Class V for protection, and replenishing combat lifesaver bags.

A truck stop CSC provides life support for all convoy personnel, and might include one or more 150-person modules of the Force Provider set (tents and cots), a shower, laundry, and clothing repair (SLCR) team from a field services company, and AAFES support.

Mini-Mart

Mini-Mart is a medium service CSC that operates as part of a smaller support area supporting convoys moving through the area en route to another hub or final destination.

The CSSB provides C2 for the Mini-Mart CSC. The Mini-Mart CSC is capable of providing bulk and retail Class III, bulk and bottled water, Class I (MKT-UGR/MRE), and replenishing combat lifesaver bags.

There is no life support capability except for CSC personnel.

Pit Stop

A Pit Stop provides minimal service. It's normally limited to Class III, and Class I (MRE/water) and possibly minimal maintenance support.

The CSSB provides C2 for the Pit Stop CSC. The truck stop CSC is capable of providing bulk and retail Class III, bulk and bottled water, and Class I (MKT-UGR/MRE).

There is no LOG automation. There is no life support capability except for CSC personnel.

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Trailer Transfer Points

Truck operations can be line-haul (one round trip per 10-hour shift) or local-haul (two or more round trips per 10-hour shift).

Trailer Transfer Points (TTPs) are employed to connect line-haul legs to throughput cargo long-hauls by providing the following services:

- Provide support every 90 miles
- Cargo can be segregated or transloaded
- Semitrailer relay operations can exchange/drop/swap/pick up trailers
- Dispatch procedures
- Refueling operations for the line-haul units
- Services and inspections of trailers and emergency repair
- In-transit Visibility and documentation

Trailer Transfer Points offer facilities for exchanging semi-trailers between line-haul tractors operating over adjoining segments of a line-haul route.

They are established on or as close to the line-haul route as possible; however, requirements for hardstands, support facilities, security, and the availability of real estate may force the Trailer Transfer Point off of the line-haul route.

Trailer Transfer Points are not normally used to pick up and deliver cargo.



Soldiers of the 541st Combat Sustainment Support Bt. Manning the Trailer Transfer Point Contingency Operating Base Speicher, Iraq

It holds, loads, and unloads trailers as they wait for units to come pick them up or convoys to transfer them to another destination.

We verify the cargo when it comes in, to maintain accountability of each piece that passes through the yard.

The Savi Signpost system is an interrogator system that tracks the RF ID tags as they enter and exit the TTP. It helps us out a lot. Sometimes, we get cargo in that we don't have paperwork for.

We can then check the radio frequency identification (RF ID) tags that are on the cargo to see what transportation movement request (TMR) it goes with.

We make sure that the trailers are fully mission-capable, staged, and ready to go so the units get the stuff they need.



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Quick Challenge

QUICK CHALLENGE



The Inland Cargo Transfer Company (ICTC) and Movement Control Team (MCT) elements are capable of running convoys, burning and reading RF ID tags, handling palletized cargo, containers, and materiel inside a warehouse, and perform retrograde operations in which type of land terminal setting?

Select the best answer and then select Submit.



A. Central Receiving and Shipping Point (CRSP)

B. Trailer Transfer Point (TTP)

C. Convoy Support Center (CSC)

D. Intermediate Staging Base (ISB)

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Deployment Terminals

The United States Transportation Command (USTRANSCOM) maintains strategic movement control by providing worldwide air, land, and sea transportation and common-user port management at air and sea ports of embarkation (POEs) and/or ports of debarkation (PODs).

There are essential activities that occur during deployment operations as units arrive at the Sea Port of Embarkation for deployment by strategic sealift.

The tasks are performed by a number of DoD and Army units and ad hoc organizations.

As strategic airlift was discussed in the Unit Movement Officer: Air Operations lesson, this section will be sealift specific.



Deployment terminals operate on a peacetime basis and throughout all levels of war.

As strategic airlift was discussed in the Unit Movement Officer: Air Operations lesson, this section will be sealift specific.

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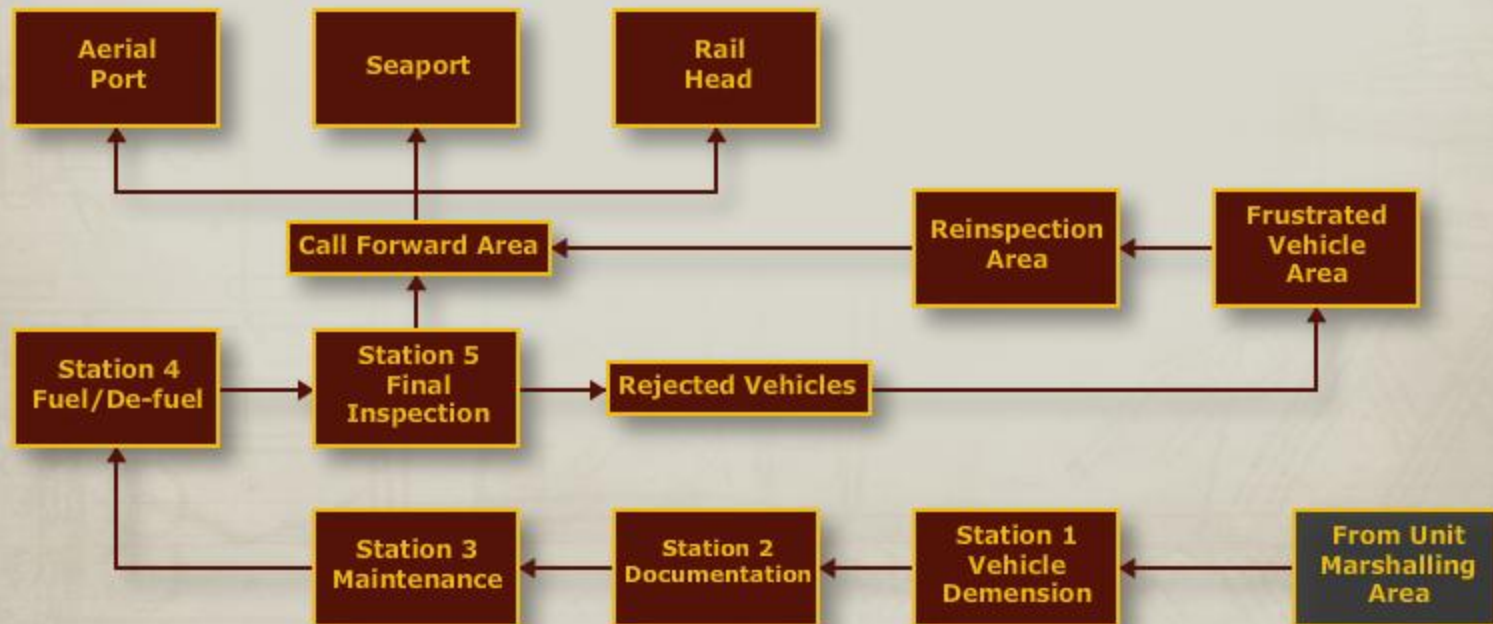


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Logistical Support

Once the Surface Deployment and Distribution Command (SDDC) issues a port call message to the unit, that unit's installation follows an Installation Deployment Support Plan (IDSP) that defines the concept of support and should include measures to address the quality of its services as it prepares units for deployment.

In CONUS, under Installation Management Command (IMCOM) supervision, a unit movement coordinator (UMC) is assigned from the installation staff to serve as a point of contact for the deploying unit's Unit Movement Officer (UMO).



The Installation Deployment Support Plan defines the concept of support and should include measures to address the quality of its services as it prepares units for deployment.

Once a unit has prepared their equipment for deployment, the equipment moves to a central staging area on the installation for further processing.

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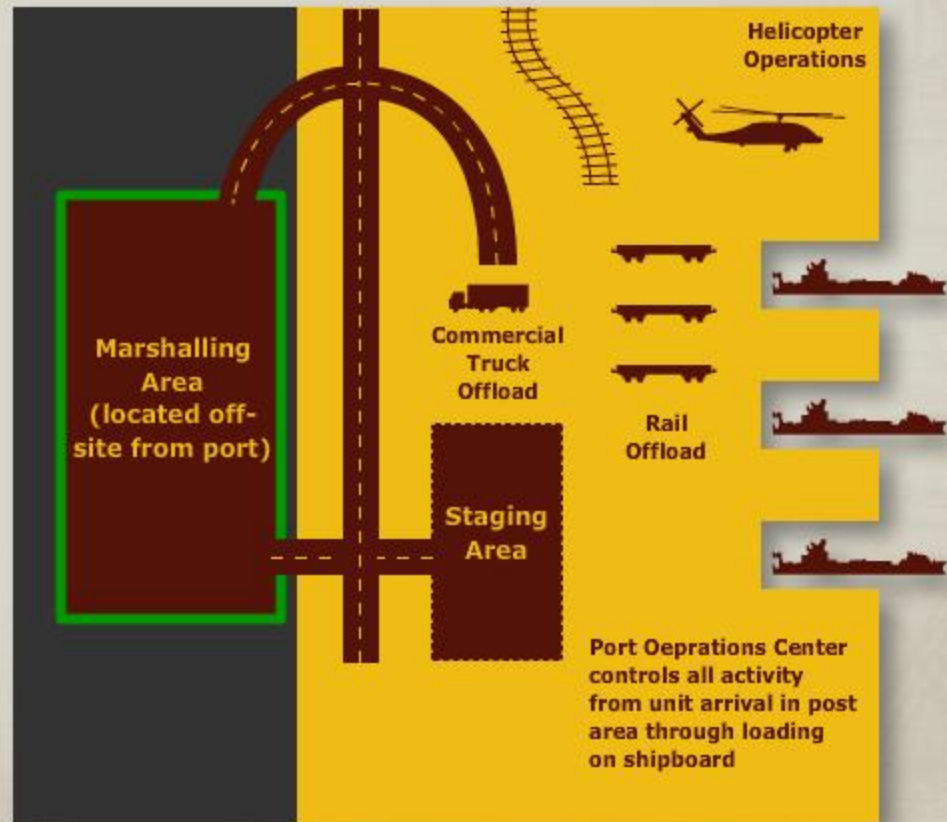
SPOE Marshalling Area

For movement to SPOEs, deploying units and equipment may use an enroute unit staging area, established and operated by the supporting installation.

These areas are ideally located near the port staging area and in the immediate vicinity of rail and truck discharge sites.

The SPOE marshalling area is the final enroute location for preparation of unit equipment for overseas movement prior to the equipment entering the port staging area.

Equipment arriving in the marshalling area is normally segregated in accordance with the vessel stow plan.



Establishment of a seaport of embarkation marshalling area reduces congestion within the terminal area and provides space for sorting vehicles for vessel loading.

The layout of a marshalling yard is not fixed, but is contingent on available space and needs of the unit.

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Port Staging Area

The equipment is moved from the marshalling area or installation to the staging area based on the call forward plan and as directed by the port commander.

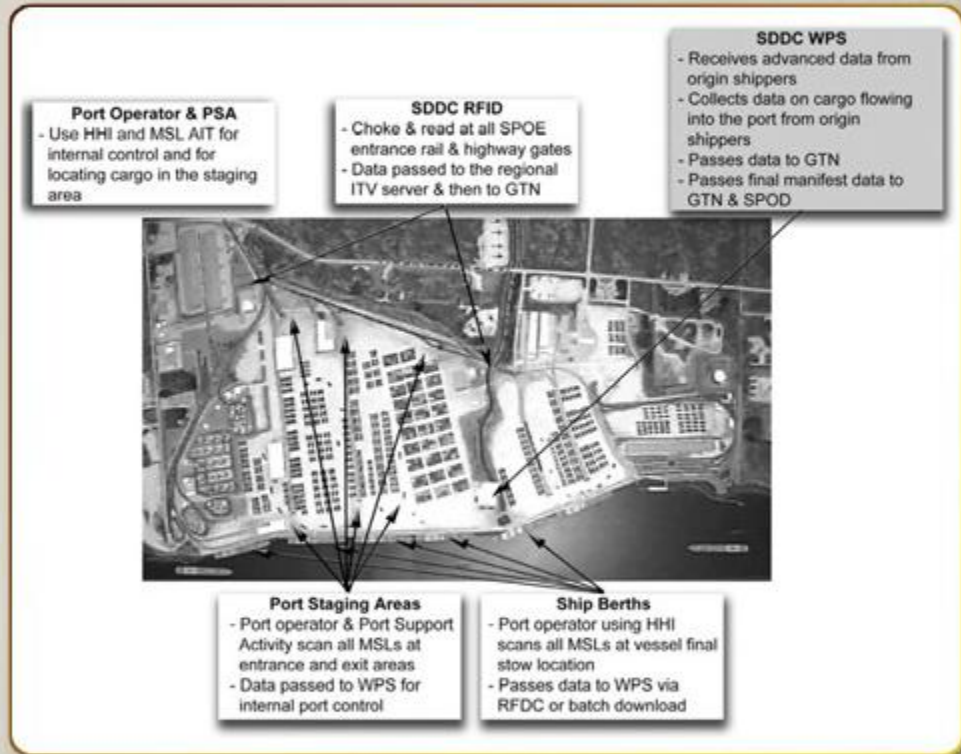
The SDDC port commander assumes custody of the cargo at this point.

Activities within the area include:

- Inspecting equipment for serviceability
- Preparing packing lists/load card
- Determining the accuracy of dimensions and weights
- Inspecting properly secured secondary loads
- Documenting any cargo requiring special handling

Military shipment labels affixed to equipment will be scanned using bar code readers.

The data will then be loaded into the Global Air Transportation Execution System/Worldwide Port System convergence (GATES/WPS) to produce the ship manifests and serve



As unit equipment is moved from the marshalling area or installation to the staging area, the Surface Deployment and Distribution Command port commander assumes custody of the cargo.

Phase One focused on the GATES capability in supporting the Military Surface Deployment and Distribution Command headquarters level functionality completed in November 2008, and Phase Two focuses on GATES SDDC ocean terminal capability, scheduled for completion in September 2011.

I don't know what the remainder of the slide should be. The text is cut off by the template not by me.

The Global Air Transportation Execution System/Worldwide Port System convergence or GATES/WPS software was successfully fielded in November 2010.

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Port Staging Area (cont.)

When processed, equipment may be segregated into different lots within the staging area by type, size, and any other special considerations such as:

- Hazardous materials
- Sensitive and classified items
- Containerized equipment

The port support activity (PSA) is a flexible support organization designed to assist SDDC with the loading or discharge of cargo, vehicles, and equipment at seaports.

From the staging area, vehicles are called forward to load onto their assigned ship based on the stow plan and call forward schedules.

For further information on sealift movements, see DoD 4500.9-R, Defense Transportation Regulation, Part III, Mobility, Chapter 303, Deployment Activities, Chapter 305, Redeployment, and Appendix C, Sealift Sources.

Within the continental United States, the Port Support Activity operates in the port staging area.

Outside the continental United States, an organization will be designated to provide port support and associated logistic support for deploying units, or support will be requested from sustainment forces or the deploying force to satisfy the requirement.



Port Support Activity personnel provide assistance in deployment (i.e., vehicle drivers, equipment operators, limited maintenance, security, and life support).

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Supercargoes

Supercargoes are teams of Soldiers who accompany, supervise, guard, and maintain unit equipment as it is being sealifted to a deployment destination.

This team performs as a liaison during cargo reception at the SPOE, vessel loading and discharge operations, and SPOD port clearance operations.

The supercargoes are attached to the port operator and remain with the port operator at the SPOD until the offload is complete and they are released back to their units.

The Military Sealift Command representative determines the actual number of supercargo personnel permitted onboard, based on the berthing capacity on the ship.

Supercargoes (also known as offload preparation parties) serve as the unit commander's on-board representative and are attached to the port operator and remain with the port operator at the SPOD until the offload is complete and they are released back to their units.

They monitor and correct equipment lashings and tie-downs during the movement and also provide key control.



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Deployment and Distribution Support Battalion

Upon arrival at the Seaport of Debarkation, reception activities will be supervised by the Deployment and Distribution Support Battalion, usually a Reserve component that has specialized technical skills and knowledges in operating terminals.

Their expertise in deployment includes:

- Technical deployment-related C2 experience
- Employing Terminal Supervision Teams to increase management capability
- Utilizing automated information technology via their attached Automated Cargo Documentation Team
- Assisting the Brigade Mobility Officer or Installation Transportation Officer
- Maintaining container management in theater through their Deployment and Distribution Support Teams (DDSTs)
- HAZMAT qualified personnel



The Deployment and Distribution Battalion is tasked with managing port operations and coordinating with many agencies and organizations to ensure the success of their mission.

They not only run the port, which includes all the aspects of uploading and downloading the cargo from these ships, but also have four Deployment Distribution Support Teams independently positioned to ensure proper and accurate documentation and In-transit Visibility is maintained.

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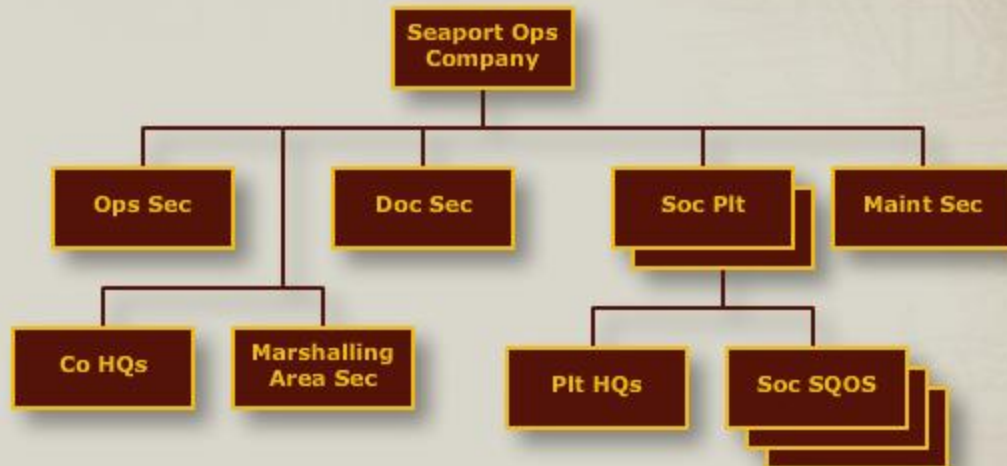


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Seaport Operations Company

The Seaport Operations Company (SOC) is normally assigned to sea-based missions where they perform seaport terminal service operations to discharge and load containerized cargo and wheeled/tracked vehicles in fixed seaports or in joint logistics-over-the-shore (JLOTS) sites, while providing accurate documentation and In-transit Visibility.

The present operational environment has caused some SOC units to adjust their mission to land-based operations such as a Central Receiving and Shipping Point (CRSP), Intermediate Staging Base (ISB), or even a Trailer Transfer Point (TTP).



“PICK IT UP!”



Within a fixed port, the Seaport Operations Company can discharge or load up to 375 containers, 750 wheeled or tracked vehicles, or 1,875 short tons (one short ton equals 2,000 pounds) of breakbulk cargo per day.

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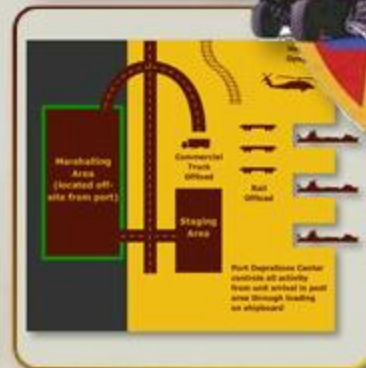
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Key Points

The following key points concerning Deployment Terminal operations were discussed:

- Terminal types
- Logistical support
- Marshalling areas
- Port staging areas
- Supercargoes
- Deployment and Distribution Battalion
- Seaport Operations Company

KEY POINTS



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Quick Challenge

QUICK CHALLENGE



Who assumes custody of unit equipment once it moves from the marshalling area to the port staging area at a Sea Port of Embarkation?

Select the best answer and then select Submit.

- A. The Military Sealift Command
- B. The Deployment Support Command
-  C. The SDDC port commander
- D. The Brigade Mobility Officer

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Summary

In this lesson, we have discussed the activities, elements, and responsibilities currently practiced during Terminal Operations for ongoing improvement in U.S. Force Projection within the Operational Environment.

A deploying unit is broken down into multiple segments to be moved through the deployment pipeline where personnel normally move by airlift and equipment by sealift from the port of embarkation to port of debarkation.

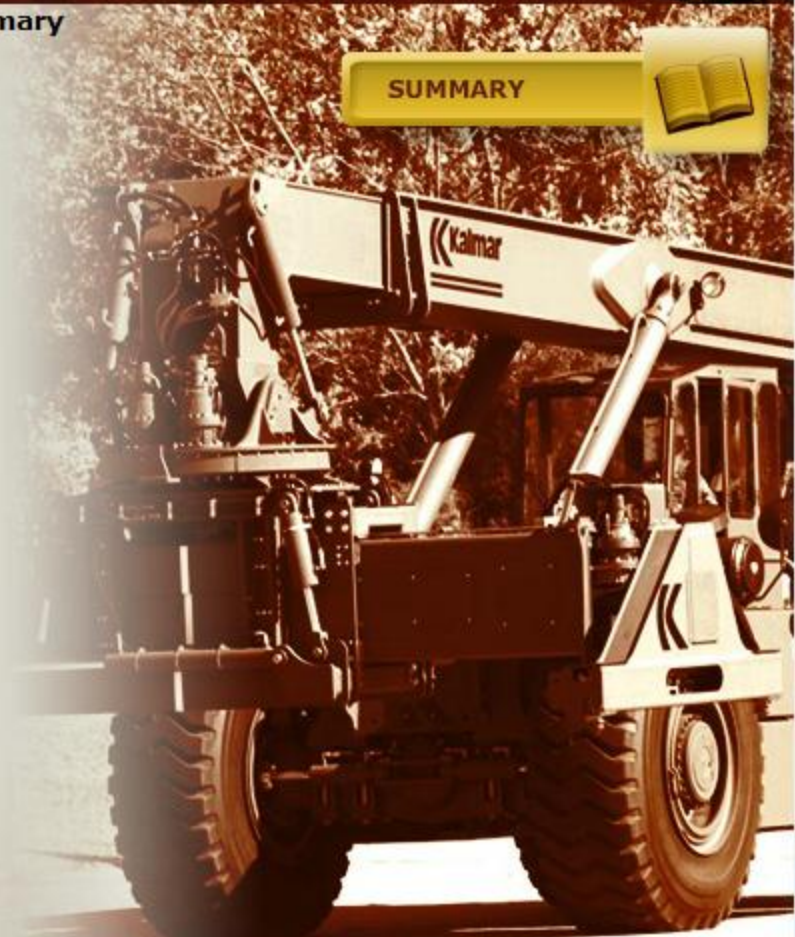
Efficient terminal operations is part of the total deployment process, and as a Senior Transportation or Logistics Officer, you must understand the contribution terminals have to the overall mission accomplishment.

Today's operational environments demand flexible and fluid transportation support procedures and functional relationships to sustain U.S. and coalition forces.

Your understanding of the responsibilities and activities involved with terminal operations and its role in strategic lift, will contribute to satisfying the combatant commander's intent.

Efficient terminal operations give the supported combatant commander rapid Force Projection.

SUMMARY



Good luck on the assessment.